City of GALT

Public Works Department

October 19, 2015

Via e-mail
RB5S-NPDES-Comments@waterboards.ca.gov

Mr. James D. Marshall
Senior Water Resources Control Engineer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114

NPDES Permit No. CA0081434

SUBJECT: Comments on the 2015 Tentative NPDES Permit for the City of Galt Wastewater Treatment Plant and Reclamation Facility

Dear Mr. Marshall:

Thank you for providing the opportunity to the City of Galt (City) to review and submit comments on Order R5-2015-XXXX, NPDES No CA0081434 (Tentative NPDES Permit), which addresses the requirements for surface water discharges from the City's Wastewater Treatment Plant and Reclamation Facility (WWTP).
The Tentative NDPES Permit was issued for public comment by the Central Valley Regional Water Quality Control Board (Regional Board) on September 17, 2015, and comments are due no later than 5 PM on October 19, 2015. The Regional Board currently regulates surface water and land discharge from the WWTP under Waste Discharge Requirements Order No. R5-2010-0099, NPDES No. CA0081434 and Time Schedule Order R5-2015-0900.
The City appreciates the time and effort that you and your staff have put into developing the Tentative NPDES Permit. The City especially appreciates the incorporation into these documents revisions to the existing discharge permits that were requested in the City's permit renewal application and the Report of Waste Discharge (ROWD). This letter summarizes the City's additional comments on the Tentative NPDES Permit.

Major Comments on the Tentative NPDES Permit

1. Revise References to "Skunk Creek" to be "remnant channel of Skunk Creek"

Each of the three tentative documents includes at least one reference to the City's surface water discharge point as "Skunk Creek." While the discharge channel was historically part of Skunk Creek, the main channel of Skunk Creek was re-routed prior to the construction of the WWTP. Therefore, it is not accurate to refer to the channel that receives the City's discharge as Skunk Creek, and it would be more accurate to refer to this as a "remnant channel of Skunk Creek." The City therefore requests that the Regional Board replace all references to "Skunk Creek" to say "remnant channel of Skunk Creek."

2. Remove Annual Mass Limit for Mercury (Page 5)

The Tentative NPDES Permit proposes a total mercury mass limitation of 0.05 pounds/year, as a total annual mass discharge. However, there is no discussion in the Fact Sheet explaining why an effluent limitation for mercury is

necessary. Under federal NPDES regulations, water quality-based effluent limitations are only imposed when the discharge of a pollutant will cause, have the reasonable potential to cause, or contribute to an excursion of a water quality standard (i.e., a water quality objective under state law). Further, fact sheets for NPDES permits must contain any calculation and necessary explanation of the derivation of effluent limitations required under section 122.44 of Title 40 of the Code of Federal Regulations.

As documented in the City's Report of Waste Discharge, there is no reasonable potential for the effluent to exceed any applicable water quality objectives for mercury. Therefore, the City requests that the effluent limitation for total mercury be removed.

3. *Clarify Calculation and Reporting Requirements for Receiving Water Dissolved Oxygen (pages 17 and E-18)*

The Tentative NPDES Permit includes three surface water limits for Dissolved Oxygen (DO), requiring that the City's discharge not cause the following in Laguna Creek:

a. *The monthly median of the mean daily dissolved oxygen concentration to fall below 85 percent of saturation in the main water mass;*
b. *The 95 percentile dissolved oxygen concentration to fall below 75 percent of saturation; nor*
c. *The dissolved oxygen concentration to be reduced below 7.0 mg/L at any time.*

Item H of the "Compliance Determination section (VII) in the Tentative NPDES Permit discusses how compliance with these DO surface water limits are to be determined. As indicated there, compliance with parts "a" and "b" can only be determined if DO receiving water monitoring is conducted more frequently than the required weekly minimum. The City assumes that this was included because parts "a" and "b" are statistical estimates that require a certain minimum number of data points to be meaningful. To avoid potential confusion in the future, the City requests that that the frequency required for determining compliance with parts "a" and "b" be more specifically defined so it is clear when compliance should be determined. Generally, a minimum of six (6) data points is considered adequate for a statistically meaningful result. Therefore, the suggested revisions on page 17 are as follows:

> *Weekly receiving water monitoring data, measured at monitoring locations RSW-001 and RSW-002, will be used to determine compliance with part "c" of the dissolved oxygen receiving water limitation to ensure the discharge does not cause the dissolved oxygen concentrations in Laguna Creek to be reduced below 7.0 mg/L at any time. However, should more frequent dissolved oxygen and temperature receiving water monitoring be conducted to result in a minimum of six data points, Central Valley Water Board staff may evaluate compliance with parts "a" and "b".*

In addition, the City requests that the Monitoring and Reporting Program (page E-18) be modified to clearly indicate when and how the dissolved oxygen calculations need to be provided. Suggested language, is as follows:

> ***Dissolved Oxygen Receiving Water Limitations.*** *If at least six (6) data points for dissolved oxygen in the downstream receiving water are collected in a month, the Discharger shall calculate and report monthly in the self-monitoring report: i) the percent of saturation in the main water mass and ii) the 95th percentile dissolved oxygen concentration.*

4. *Allow for the Use of a Hand-held Meter for Receiving Water Turbidity Monitoring (page E-9)*

General Monitoring Provision I.C of the Tentative NPDES Permit allows for the use of field measurements for certain parameters, including dissolved oxygen, pH, temperature and turbidity. The receiving water monitoring requirements detailed in Table E-5 include Footnote 1, which specifically allows for use of a hand-held meter. References to the footnote are included for dissolved oxygen, pH, and temperature, but not for turbidity. The City requests that a hand-held meter also be allowed for measuring receiving water turbidity for consistency with General Monitoring Provision I.C and the other parameters.

5. *Remove the Reference to Priority Pollutant Monitoring Requirements from the Receiving Water Reporting Requirements Table E-5 (Page E-9)*

Footnote 2 to Table E-5 provides direction regarding the analytical methods to be used by the City when monitoring priority pollutants. However, there are not any priority pollutant monitoring requirements included in Table E-5. Therefore, the City requests that the footnote be modified as follows:

> [2] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136~~; for priority pollutants the methods must meet the lowest MLs specified in Appendix 4 of the SIP, where no methods are specified for a given pollutant,~~ or by methods approved by the Central Valley Water Board or the State Water Board.

6. *Revise Monitoring Requirement for Receiving Water pH and Temperature (page E-9)*

Footnote 3 of the Tentative NPDES Permit's Table E-5, which contains receiving water monitoring requirements, requires that pH and temperature monitoring of the receiving water "shall be determined at the time of sample collection for effluent ammonia." Effluent ammonia samples are collected as grab samples, as are the receiving water samples for pH and ammonia. The two sampling locations are about three-quarters of a mile apart from each other, so sampling at or near the same time is not practical. Sampling on the same day would be practical. Therefore, the City respectfully requests that this footnote be revised as follows:

> *[3] pH and temperature shall be determined on the same day as ~~at the time of~~ sample collection for effluent ammonia.*

7. *Revise Filtration and UV System Monitoring Requirements to Reflect Current UV System (page E-10)*

The City has several comments on the filtration and ultraviolet (UV) light disinfection system requirements in Section IX.B of the Monitoring and Reporting Program (Attachment E) of the Tentative NPDES Permit. Each comment is presented, followed by suggested revisions to the table.

a. The Tentative NPDES Permit includes a new monitoring location "FIL-001," defined in Table E-1 (page E-3) as "[a] location where a representative sample can be collected downstream of the filtration system and upstream of the ultraviolet light (UV) disinfection system." The filtration system and UV monitoring requirements in Table E-7 (page E-10) of the Tentative NPDES Permit require only turbidity to be monitored at this location. Additional filtration and UV parameters are required to be monitored at "UVS-001," defined as "[a] location where a representative sample can be collected immediately downstream of the ultraviolet light (UV) disinfection system."
   Both flow and UV Transmittance are monitored upstream of the UV system. Therefore, the City requests that the monitoring location for Flow and UV transmittance in Table E-7 be revised to FIL-001.
b. Footnote 1 to Table E-7 requires additional reporting activities if any continuous analyzer "fails to provide continuous monitoring for more than two hours and influent and/or effluent from the disinfection process is not diverted for retreatment…" In addition to diverting for retreatment, the City has the ability to divert secondary treated effluent for irrigation reuse. Therefore, the City requests that "or irrigation reuse" be added to this footnote.
c. The City requests that footnotes be added to the table to clarify the specific reporting requirements for Number of UV banks in operation and UV Transmittance, which are monitored continuously. For the Number of UV banks in operation, the City suggests that the daily minimum and daily maximum values be reported. For UV transmittance, the City suggests that the minimum hourly average and daily average results be provided (the same as for UV dose).
d. The requirements for reporting UV dose data as they are currently presented in footnote 3 are unclear. The footnote currently reads as follows:

Report daily minimum hourly average UV dose and daily average UV dose. The minimum hourly average dose shall consist of lowest hourly average dose provided in any channel that had at least one bank of lamps operating during the hour interval. For channels that did not operate for the entire hour interval, the dose will be averaged based on the actual operation time.

It is not clear from this footnote whether the hourly average is to be calculated for each 60 minute period or whether it is meant to be calculated for each hour of the day (e.g. 1:00 PM to 1:59 PM). Thus, the City requests that the permit be revised to provide more direction on the calculation procedure. Moreover, it is the City's preference that the dose be calculated for each hour of the day (e.g. 1:00 PM to 1:59 PM) versus calculating the minimum dose for each 60 minute period. This same clarification would be necessary for the UV Transmittance if the Regional Board accepts the reporting requirement addition suggested above.

e. Reporting UV dose for each channel is not feasible with the City's current control system. For the City to report UV dose per channel would require a major programming change to the City's UV reporting system. Instead, UV dose for the whole UV system is readily available with the City's current reporting setup. For this reason, the City requests that footnote 3 also be modified to require reporting of UV dose for the whole system and not per channel.
f. The reference to footnote 3 (footnote 5 with the added footnotes described above) is inconsistent with other permit footnotes in its current location and would be consistent with the references to the other footnotes if moved to the Minimum Sampling Frequency column of the table.
g. The introductory text to Table E-7 only references "UVS-001" but should also reference "FIL-001."
h. The City has the ability to divert flows to the Effluent Reservoir downstream of the UV system in the event that the UV system is (or is suspected) to not be operating properly. For clarity, the City requests that the footnotes in Table E-7 clearly state that the reported information not include data collected during periods when effluent is not discharged to surface waters.

The suggested changes to Table E-7 and the introductory text per the discussion above would appear in the permit as follows:

a. *The Discharger shall monitor the filtration system and ~~the~~ UV disinfection system at Monitoring Locations FIL-001 and UVS-001 as follows:*

Table E-7. Filtration System and UV Disinfection System Monitoring Requirements

Parameter	Units	Sample Type	Monitoring Location	Minimum Sampling Frequency
Flow	MGD	Meter	~~UVS-001~~ FIL-001	Continuous[1]
Turbidity	NTU	Meter	FIL-001	Continuous[1, 2]
Number of UV banks in operation	Number	Observation	N/A	Continuous[1,3]
UV Transmittance	Percent (%)	Meter	~~UVS-001~~ FIL-001	Continuous[1,4]
UV Dose[3]	mJ/cm^2	Calculated	N/A	Continuous[1,5]
Total Coliform Organisms	MPN/100mL	Grab	UVS-001	2/Week

[1] *For continuous analyzers, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation. If analyzer(s) fail to provide continuous monitoring for more than two hours and influent and/or effluent from the disinfection process is not diverted for retreatment or irrigation reuse, the*

Discharger shall obtain and report hourly manual and/or grab sample results. The Discharger shall not decrease power settings or reduce the number of UV lamp banks in operation while the continuous analyzers are out of service and water is being disinfected

2 *Report daily average and maximum turbidity. Turbidity reporting should only include periods when flows are being discharged to surface waters.*

3 *Report daily minimum and daily maximum number of UV banks in operation.*

~~4~~ *Report daily minimum hourly average UV transmittance and daily average UV transmittance. The minimum hourly average transmittance shall consist of lowest average transmittance recorded over an hour of day when flow is being discharged to surface waters. If the system does not operate for an entire daily hour interval, the transmittance will be averaged based on the actual operation/discharge time during that hour of the day.*

5~~3~~ *Report daily minimum hourly average UV dose and daily average UV dose. The minimum hourly average dose shall consist of lowest hourly average dose provided in the UV system ~~any channel that had~~ when at least one bank of lamps operating and flow is being discharged to surface water during that ~~the~~ hour of the day ~~interval~~. ~~For channels that~~ If the system did not operate or effluent flow is diverted for the entire hour interval, the dose will be averaged based on the actual operation/discharge time.*

8. Revise Figures and References to Reflect Conversion of Field 1 to a Rifle Range (Attachment B)

Since completing the ROWD, the City has converted Zone 1 of Field A to a rifle range for the City's police department. Therefore, the site map in the NPDES Permit needs to be updated to reflect this change. In addition, since Zone 1 of Field A has been converted to a rifle range, the Reuse Area now totals 164 acres, not 172 acres. Therefore, references in the Tentative NPDES Permit to the "172 acres" will need to be revised to be accurate.
A revised site location map is attached to this letter for inclusion in the NDPES Permit that reflects the construction of the rifle range. In addition, the reference to the 172 acres found on page F-5 of the Tentative NPDES Permit should be revised to 164 acres.

9. Clarify the City's Exemption to the Current NPDES Industrial Storm Water Program (Fact Sheet, page F-10)

The permit references the State Water Board Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, which was recently superseded by State Water Board Water Quality Order No. 2014 0057 DWQ. In July 2015, the City submitted a No Discharge Technical Report to the Central Valley Regional Board, documenting that storm water from the treatment plant area is diverted to, and contained within, the City's storage facilities. Accordingly, the State Water Resources Control Board issued a Notice of Non-Applicability to the City, documenting the City's exemption for the new permit. A copy of this Notice of Non-Applicability is attached to this letter. The Storm Water Requirements section of the Fact Sheet needs to be revised accordingly.

Minor Factual or Typographical Corrections

The City's comments on minor factual inconsistencies or typographical corrections in the Tentative NPDES permit are provided in Table 1. The first column of the table indicates the location of the permit to which the comment applies, and the second column includes the City's suggested revisions. Several of the suggested revisions, for clarity, are provided in a "tracked-changes" format (blue, underlined text indicates text to add; red, struck-through text indicates text to remove).

Table 1. Factual Comments on the Tentative NPDES Permit	
Location	**Comment**
Page 4, Discharge Prohibitions (III), Item A	Section references appear to be incorrect: "described in the Fact Sheet in sections II.~~B~~A and II.E.~~2~~…"
Page 7, Receiving Water Limitations (V), Surface Water Limitations (A), Items 10-17	The numbering for the "Radioactivity" section is missing. This should be Item 10, which will also increase the numbers of the subsequent items by one.
Monitoring and Reporting Requirements (Attachment E, Sections I through IX)	
Page E-3, Monitoring Locations (II), Table E-1	Spaces were left in the tentative permit for the coordinates of the effluent and receiving water sampling locations. These are as follows: • EFF-001: 38°17'56 N, 121°19'46" W • RSW-001: 38°18'37 N, 121°19'41" W
Page E-5, Effluent Monitoring Requirements (IV), Monitoring Location EFF-001 (A), Item 1, Table E-3	The City notes that a requirement to calculate an annual load for mercury is not listed in Table E-3 (although the City is required to calculate this per Section VII.B of the permit, on page 15). For clarification, the City requests a requirement to report mercury "1/Year" in "lbs/year" be included in Table E-3. (Similar to the requirements for BOD, TSS and Ammonia loads.)
	The reference in Footnote 8 to "methyl mercury" is not relevant and can be removed: "with a reporting limit of ~~0.05 ng/L for methyl mercury and~~ 0.5 ng/L for mercury."
	Footnote 11 references "total coliform organisms," which is not relevant, so the footnote can be removed.
Page E-14, Other Monitoring Requirements (IX), Effluent and Receiving Water Characterization (C), Item 3, Table E-8	The City requests that the sample type for effluent hardness monitoring as part of the Effluent and Receiving Water Characterization Study be a "24-hour composite" to be consistent with routine effluent monitoring specified in Table E-3.
Page E-17, Reporting Requirements (X), SMRs (B), Items 7.f and 7.g	The calculation procedures specified for complying with turbidity and temperature receiving water limitations imply that these parameters only increase from upstream to downstream. It would be more accurate to require calculation of the "change in" turbidity or temperature, rather than assuming an increase.
Fact Sheet (Attachment F)	
Page F-2, List of Tables	The list of tables includes a few bookmark errors that need to be corrected.
Page F-3, Table F-1	"Utliities Manager" should be "Utilities Manager" under Facility Contact and Authorized Person.
Page F-5, 4th full paragraph	"…surface water under this Order ~~a NPDES permit~~…"

Table 2. Factual Comments on the Tentative NPDES Permit (*continued*)	
Location	**Comment**
Fact Sheet (Attachment F) (*continued*)	
Pages F-24 and F-25, Section IV.C.3.a.i.(a); and Page F-34, Section IV.C.3.b.i.(a)	These sections include references to the "San Joaquin River" as the City's receiving water. The references should instead be to the "Cosumnes River," which is the City's ultimate receiving water.
Page F-46, Section IV.C.5.b	This section discusses the rationale for chronic toxicity requirements and states that Special Provision VI.C.2.a requires the City to submit a TRE Workplan. However, the referenced provision does not include a requirement for a new TRE Workplan but documents that the City already has an approved workplan (page E-8). This reference in the Fact Sheet should be revised to reference the approved workplan.
Page F-59, Rationale for Monitoring and Reporting Requirements (VII), Other Monitoring Requirements (E), Item 3	General Monitoring Provision Item G includes a new requirement that the City analyze any sample provided by USEPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. Associated Fact Sheet language (page F-59) discusses an annual "DMR-QA Study Program," which appears to be the same program, and indicates that results must be submitted annually. However, the corresponding text in the Monitoring and Reporting Program does not indicate an annual requirement. The City requests that the Fact Sheet language be revised for consistency with the monitoring requirement.
Page F-59, Public Participation (VIII), Item A	"Notification was provided through ~~the following:~~ publication in The Galt Herald on September 30, 2015.

The City appreciates the opportunity to review the Tentative NDPES Permit and provide comments to ensure that the order is a clear and effective regulatory document. Please feel free to contact me at 209-366-7260 or Kathryn Gies of West Yost Associates at 925-949-5815 should you have any questions on these comments.

Sincerely,

Mark A. Clarkson, P.E.
Utilities Manager
cc: Kathryn Gies, West Yost Associates (*email*)
Attachments (2)